May 13, 2002

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Mortimer A. Gelston, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: Islander East Project
North Haven, North Branford, East Haven, Branford
Docket No. 221

Dear Mr. Gelston:

Staff from the Office of Long Island Sound Programs (OLISP) have reviewed the above-referenced application for a Certificate of Environmental Compatibility and Public Need. We thank you for the opportunity to submit these comments and hope that they are of assistance to the Council in your proceedings on this application.

The proposed project involves maintenance work and upgrading of the existing Algonquin pipeline from Cheshire to North Haven and the installation of a new 24" diameter pipeline from North Haven to Branford (21.2 miles) and continuing across Long Island Sound to Brookhaven, New York. The pipeline will cross 19 waterbodies (rivers and streams) in Connecticut. The plan calls for completing all 19 crossings using the flume method unless resource constraints necessitate the dam and pump method. Work to be conducted in Long Island Sound includes the use of either a jetting sled or subsea plow to trench and bury approximately 22.8 miles of pipeline. The horizontal directional drill technique will be used to install approximately 4,000 feet of pipeline at the mainland approach to Connecticut.

Review
The proposed project will require a Water Quality Certificate (WQC) pursuant to section 401 of the Federal Clean Water Act, as amended, and a federal consistency review pursuant to the Coastal Zone Management Act Federal Consistency Regulation 15 Code of Federal Regulations (CFR) Part 930 Subpart D -- Consistency for Activities Requiring a Federal License or Permit. While the 401 WQC program is administered by both the Bureau of Water Management's Inland Water Resources Division and OLISP, OLISP will be taking the administrative lead on a combined WQC. A 401 WQC application was received on February 19, 2002 which is currently being reviewed for completeness. A federal consistency review request was received on April 15, 2002.

Process
OLISP will be reviewing the WQC application for impacts to resources waterward of the high tide line which is defined as the upper limit of a one-year frequency tidal flood. OLISP review includes tidal rivers, watercourses and wetlands. For the proposed pipeline project, the primary coastal resource focus will be on tidal wetlands, shellfish and finfish. As noted above, the DEP's Bureau of Water Management, Inland Water Resources Division (IWRD) will also have an

direct role in the review of the WQC application. The primary focus of the IWRD review will be on inland wetland impacts and stream and river crossings.

Resource experts are consulted during this review. Contributing organizations include the Connecticut Department of Agriculture's Bureau of Aquaculture (Aquaculture), DEP Fisheries Division, the National Marine Fisheries Service and other resource experts, as appropriate. Staff will also be working in cooperation with representatives from the Army Corps of Engineers during the WQC review process. The comments and recommendations of these groups will be evaluated by OLISP and IWRD in reaching a determination on the proposed pipeline. Please note that while input from Aquaculture staff will be sought by this Office during the WQC review, this Office does not represent the Department of Agriculture. It is assumed that the Department of Agriculture will be providing comments and recommendations directly to the Siting Council regarding any aquaculture issues and concerns.

General Application Commentary

Offshore Horizontal Directional Drilling (HDD)

The horizontal directional drill technique is being proposed to install approximately 4,000 feet of pipeline at the mainland approach to Connecticut. Since this technology is relatively new and has a short track record, there are several outstanding concerns that will need to be addressed. During a meeting between OLISP staff and Islander East consultants on February 7, 2002, a question was raised regarding obstructions to the primary drill hole. If it is necessary to reroute the drillhole, where would it go? How many attempts would be made before the HDD borehole is abandoned?

The applicant is planning for the pipe to exit the seabed of the Sound after 4,000 feet. At the exit point, a 20' D x 250' W x 300' L pit will be dug. The depth of the seaward side of the pit will taper to the seabed depth (about 15' MLW). Dredged spoils will be sidecast on three sides of the pit, extending 65' from the edges and possibly mounding to the water surface (the depth in the vicinity of the pit is about 15' MLW). The applicant has indicated that the mounds which may constitute a hazard to navigation will be marked with signs and lights on temporary timber pilings. The pilings will be maintained until the spoil has been returned to the pipeline trench from which it was removed.

Application materials should include a response plan to address any emergencies which might arise during pipeline installation such as a bentonite breakout during directional drilling. An on-going Operations and Maintenance Plan will also be necessary. This plan must describe maintenance and repair procedures and emergency response procedures. DEP typically requires the posting of a performance bond for directional drilling projects to address any outbreaks of bentonite.

Although Islander East is not proposing blasting at this time, it has indicated that blasting may be necessary. The applicant will be advised that additional authorizations from this Office will be required if blasting is necessary.

Offshore Laying and Burying Pipe

The applicant is proposing to bury the pipeline 3' deep across LIS. From the pit at the HDD exit point out to the 20' depth contour (1.1 miles), a clamshell dredge will be used to dig the trench. The trench will be 50' wide at the top, and spoils will be sidecast in a 60' wide area along one side of the trench. Once the pipe is installed the trench will be backfilled. In depths greater than 20', the applicant states that plowing is the preferred method of digging the trench, with jetting as an alternative. Plowing has been proposed so as to suspend as little sediment as possible. The trench will be 25' wide, and sediment will be pushed up and out by the plow 25' on either side for a total impact zone of 75'. Once the pipe is installed, the trench will be backfilled.

The applicant is proposing to use an anchoring barge and associated vessels to support the plow. A 10-point anchoring system will be used to position the barge. Depending upon the depth, cables will extend out 1,200' to 2,000' on either side. The barge will have to be repositioned as the work proceeds. During this process, the anchor cables will sweep along the seafloor and disturb the top layer of sediment. It is not clear if the jet sled anchoring system is the same as that used for the plow. If the same anchoring system is used, then each method would probably have the same impacts from both cable sweep and anchoring. It is not clear how deeply the cables will scour the seabed, but there will likely be negative impacts to benthic infauna. The applicant will need to supply additional information on the impacts of cable sweep and anchoring.

The proposed pipeline route will cross a considerable amount of benthic habitat used by a variety of fish and invertebrate species. For most of the pipeline route, the seafloor is generally featureless, and comprised of soft sediment habitats (fine-grained, silty-sand and mud) that are typical of Central Long Island Sound. Excluding the HDD portion, depths range from 15' to 95' in Connecticut's waters. Benthic community sampling conducted on behalf of Islander East by Roman Zajac showed that the benthic infauna is typical of a late succession stage (Stage III) community, dominated by certain species of marine worms and bivalves. American lobster and various crabs are common along the route, and this type of habitat is used by a variety of fish species, most notably demersal species such as winter flounder and windowpane flounder.

Clearly, installation of the pipe will cause localized sediment dispersal. A marine sediment dispersion analysis was received by this Office on April 26, 2002 and has not yet been reviewed for completeness. Additional studies are being conducted with a final report to be completed by June 2002. Since all information is not yet available, this Office cannot comment on sediment disturbance at this time. If a final sediment analysis indicates a level of disruption that may be acceptable, the DEP would typically require pre- and post-placement monitoring of the pipeline corridor along its entire length in Connecticut water.

Seasonal restrictions are often required on projects which may temporarily impair water quality due to adverse effects of elevated suspended sediment levels on certain marine organisms. Since either technique, subsea plow or jetting sled, will elevate suspended sediment levels, a seasonal restriction from June 1 through September 30 will most likely be required to protect shellfish. Other seasonal restrictions which may apply include some portion or all of a February 1 through May 15 closure to protect winter flounder eggs and larvae and some portion or all of a possible April 1 through June 30 closure to protect anadromous fish. However, based on preliminary

information. Fisheries staff have indicated that these restrictions may not be necessary because the pipeline is not proposed to cross through winter flounder spawning habitat or areas which will have an effect on anadromous fish migration.

Navigation

The applicant has provided a brief description of the temporary precautions that it will use to warn boaters of navigation hazards during pipe-laying in the vicinity of the pipe exit hole. However, additional information will be necessary on the safety measures taken to alert boaters of cable and anchoring system locations. The applicant has indicated that since the pipeline is to be buried at least 3' below the seafloor, it is below the typical level of penetration by fish trawling operation (8"-12") and small vessel anchor embedment (1'-2'). They have also indicted that it is away from anchorage areas of larger maritime traffic. No long-term location warning markers have been proposed. Additional information will be required to determine the need for permanent signage and the impact on navigation.

Commercial Lobstering

The top of the proposed pipeline will be buried a minimum of 3' in the seafloor. At this depth, and if the seafloor is returned to pre-existing topography, the pipeline will not likely interfere with the migration of species such as lobster and winter flounder, and will also not likely create problems for commercial fishermen using bottom tending nets or lobster pots.

Much of the proposed pipeline route crosses areas intensively fished by lobstermen. Although installation is relatively rapid (at least 3,000' per day with good weather), it may disrupt the lobstermen's operations. Representatives of Islander East have met with the Connecticut Lobstermen's Association to discuss the project. Based on these meetings, the applicant states that fishing activity is reduced in the winter. However, lobstering activity would depend on water temperatures in any given year, and the project is scheduled to begin in December when fishing is still likely.

Islander East states that it has agreed to provide notification of location and time of installation, and have a lobsterman act as a spotter to identify and relocate gear as necessary. DEP would typically require that an applicant such as Islander East notify affected lobster fishers. A detailed proposal on the notification process will be necessary. The applicant should contact Program Specialist Mark Alexander at the Marine Fisheries Division, 860-434-6043, for a list of potentially affected fishermen.

Onshore-Inland stream crossings

All stream crossings should be located to avoid damage to important fish habitats that cannot readily be restored after the crossings are completed. Examples of habitats to be avoided include undercut banks, especially where they are associated with the roots of large streambank trees. Other habitats that may be difficult to recreate include scour holes and other deep pools. Project designers are also urged to: 1) minimize the work footprint both within the watercourses and within the adjacent riparian areas, 2) use bio-engineering to re-establish stream banks rather than using hard armoring, 3) avoid or minimize the instream use of riprap, 4) minimize clearing of vegetation in riparian areas, and 5) restore riparian vegetation to the greatest extent possible.

With respect to instream use of riprap, any riprap used should be installed below grade and overlaid with stockpiled streambed substrates that had been removed to construct the crossing.

Consistent with DEP Inland Fisheries Division guidance, the project calls for conducting instream inland work during the low-flow season from June 1 through September 30 to protect fisheries resources. Work beyond September may be allowed, on a case by case basis after reviewing construction plans, in streams not supporting coldwater fisheries resources. Streams supporting anadromous fisheries resources may be subject to additional restrictions to ensure that construction does not interfere with migration to spawning areas.

Onshore Invasive Species

Based on the revegetation patterns observed at other utility corridors, there is a high probability that the cleared area within the Islander East right-of-way (ROW) will become dominated by invasive species if left to revegetate naturally. As these species proliferate through the pipeline corridor, they gain easier access to other areas that may become disturbed. The application should include an invasive species management plan that includes restoring disturbed areas with native vegetation and continuous monitoring and removal of invasive species over the life of the project. This plan should address any future disturbances due to pipeline maintenance or repair. An evaluation of the existing vegetation within Algonquin's ROW may show the potential for invasive species to propagate in this region and provide useful information in formulating an effective management plan.

Onshore Vernal Pools

The application material states that several vernal pools may be present. Vernal pools are sensitive habitats that support obligate species, some of which are listed as threatened in the state. Additional information should be provided that specifically identifies the boundaries of all vernal pools/vernal watercourses and the upland area habitat that support the obligate species throughout their lifecycle. There is no information regarding how construction and removal of vegetation within the ROW may impact the habitat and hydrology of vernal watercourses. This information should be provided and will be critical to the review to be conducted by the DEP's Inland Water Resources Division.

Onshore Sediment and Erosion Controls

Prior to WQC review, site specific information regarding sediment and erosion controls will be necessary. Such information should include topography, soil type, access and staging areas, orientation and location of onsite and adjacent resources. The project includes a significant amount of construction during the winter months in an attempt to minimize potential impacts on some coastal resources. However, higher runoff rates and the inability to re-vegetate disturbed areas increase the potential for erosion and sedimentation during this time of year. Without site-specific information, we cannot fully comment on the effectiveness of the Erosion and Sedimentation Plan.

Summary

The applicant indicates that the pipeline route through Long Island Sound has been chosen to minimize effects on nearshore areas, rocky areas, and shellfish beds. Some shellfish beds will, however, be crossed. It is the understanding of this Office that staff from the Connecticut

Department of Agriculture's Bureau of Aquaculture will be providing comments directly to the Siting Council on this matter. Lobstermen fishing in the area will be temporarily displaced, although fishermen in the area have met with Islander East representatives and appear to have worked out a method to avoid damage to or loss of the gear. Most of the area affected will be soft sediment habitats that support a well-developed invertebrate community that is common to Central Long Island Sound. This habitat within the construction corridor will be temporarily disrupted, and will take a period of time to recover.

Sincerely,

Charles H. Evans, Director
Office of Long Island Sound Programs

CHE/slj/mj/jg

Cc:
Mark Johnson (DEP Fisheries)
John Gaucher (DEP OLISP)
Melissa Toni (DEP IWRD)
John Volk (Aquaculture)